

## DETAILED ACTION

### EXAMINER'S AMENDMENT

1. An Examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to the applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Daniel J. Glitto Reg. No. 58,996, on 01/11/2010.

2. The application has been amended as follows: **In the claims:**

1. (Currently amended) A method to provide a handheld pointer-based user interface comprising:

encoding, at a wireless pointer component, a first human-computer interaction (HCI) signal with a first code to correspond to a first time associated with a first HCI operation;

transmitting via a first communication link the first encoded HCI signal from the wireless [[point]]\_pointer component to a base component that is operatively coupled to a screen of a display;

encoding, at the wireless [[point]]\_pointer component, a second HCI signal with a second code to correspond to a second time associated with the first HCI operation;

transmitting via the first communication link the second encoded HCI signal from the wireless pointer component to the base component, wherein the first code and the second code differ to indicate a difference between the first time the second time;

generating position information associated with the wireless pointer component based on one of the first and second HCI signals; and

transmitting via a second communication link the position information from the base component to a processor configured to generate screen information on the screen of the display.

2. (Previously Presented) A method as defined in claim 1, wherein the first time corresponds to a first position of the wireless pointer component, and wherein the second time corresponds to a second position of the wireless pointer component.

3. (Previously Presented) A method as defined in claim 1, further comprising transmitting a third HCI signal associated with one of writing, drawing, selecting, or scrolling directly on the screen of the display with the wireless pointer component by a user.

4. (Previously Presented) A method as defined in claim 1, wherein the screen of the display is associated with one of a desktop computer, a laptop computer, or a handheld computer.

5. (Previously Presented) A method as defined in claim 1, wherein transmitting via the first communication link the first HCI signal and the second HCI signal from the wireless pointer component to the base component operatively coupled to the screen of the display comprises transmitting the first HCI signal and the second HCI signal from the wireless pointer component to the base component in response to one of pressing a tip of the wireless pointer component on the screen of the display or pressing a button of the wireless pointer component.

6. (Previously Presented) A method as defined in claim 1, wherein transmitting via the second communication link the position information from the base component to the processor configured to generate screen information on the screen of the display comprises transmitting the position information from the base component to the processor via one or more communication links operating in accordance with one of an 802.11-based communication protocol, a Bluetooth-based communication protocol, or an infrared-based communication protocol.

7. (Previously Presented) A method as defined in claim 1, further comprising converting the position information from a first format to a second format based on configuration information associated with one of the base component or the screen of the display.

8. (Previously Presented) A method as defined in claim 1, further comprising generating one or more coordinates of the wireless pointer component relative to the screen of the display based on the position information.

9. (Previously Presented) A method as defined in claim 1, further comprising operatively coupling the base component on a side of the display to receive the first HCI signal and the second HCI signal.

10. (Currently amended) A machine readable medium storing instructions, which when executed, cause a machine to:

encode, at a wireless pointer component, a first human-computer interaction (HCI) signal with a first code to correspond to a first time associated with a first HCI operation;

transmit via a first communication link the first encoded HCI signal from the wireless ~~[[point]]~~ pointer component to a base component that is operatively coupled to a screen of a display;

encode, at the wireless pointer component, a second HCI signal with a second code to correspond to a second time associated with the first HCI operation;

transmit via the first communication link the second encoded HCI signal from the wireless pointer component to the base component, wherein the first code and the second code differ to indicate a difference between the first time and the second time;

generate position information ~~of~~ associated with the wireless pointer component based on one of the first and second HCI signals; and

transmit via a second communication link the information from the base component to a processor configured to generate screen information on the screen of the display.

11. (Previously Presented) A machine readable medium as defined in claim 10, wherein the first time corresponds to a first position of the wireless pointer component, and wherein the second time corresponds to a second position of the wireless pointer component.

12. (Previously Presented) A machine readable medium as defined in claim 10, wherein the instructions, when executed, cause the machine to transmit via the first communication link the first HCI signal and the second HCI signal from the wireless pointer component to the base component operatively coupled to the screen of the display by transmitting a third HCI signal associated with one of writing, drawing, selecting, or scrolling directly on the screen of the display with the wireless pointer component by a user.

13. (Previously Presented) A machine readable medium as defined in claim 10, wherein the instructions, when executed, cause the machine to transmit via the first communication link the first HCI signal and the second HCI signal from the wireless pointer component to the base component operatively coupled to the screen of the

display by transmitting the first HCI signal and the second HCI signal from the wireless pointer component to the base component operatively coupled to the screen of the display associated with one of a desktop computer, a laptop computer, or a handheld computer.

14. (Previously Presented) A machine readable medium as defined in claim 10, wherein the instructions, when executed, cause the machine to transmit via the first communication link the first HCI signal and the second HCI signal from the wireless pointer component to the base component operatively coupled to the screen of the display by transmitting the first HCI signal and the second HCI signal from the wireless pointer component to the base component in response to one of pressing a tip of the wireless pointer component on the screen of the display or pressing a button of the wireless pointer component.

15. (Previously Presented) A machine readable medium as defined in claim 10, wherein the instructions, when executed, cause the machine to convert the position information from a first format to a second format based on configuration information associated with one of the base component or the screen of the display.

16. (Previously Presented) A machine readable medium as defined in claim 10, wherein the instructions, when executed, cause the machine to generate one or more coordinates of the wireless pointer component relative to the screen of the display based on the position information.

17. (Previously Presented) An apparatus to provide a handheld pointer-based user interface comprising:

a wireless pointer component configured to encode a first human-computer interaction (HCI) signal with a first code to correspond to a first time associated with a first HCI operation and to transmit via a first communication link the first encoded HCI signal, wherein the wireless pointer component is configured to encode a second HCI signal with a second code to correspond to a second time associated with the first HCI operation and to transmit via the first communication link the second encoded HCI signal;

a base component operatively coupled to a screen of a display to receive via the first communication link the first and second encoded HCI signals from the wireless pointer component, the base component being configured to generate position information associated with the wireless pointer component based on the first and second encoded HCI signals, wherein the first code and the second code differ to indicate a difference between the first time and the second time; and

a processor configured to generate screen information on the screen of the display, wherein the processor is to receive via a second communication link the position information from the base component.

18. (Previously Presented) An apparatus as defined in claim 17, wherein the first time corresponds to a first position of the wireless pointer component, and wherein the second time corresponds to a second position of the wireless pointer component.

19. (Previously Presented) An apparatus as defined in claim 17, wherein the wireless pointer component comprises one of a stylus or an electronic pen.

20. (Previously Presented) An apparatus as defined in claim 17, wherein the screen information comprises one or more coordinates calculated based on the position information.

21. (Previously Presented) An apparatus as defined in claim 17, wherein the processor comprises one of a desktop computer, a laptop computer, or a handheld computer.

22. (Previously Presented) An apparatus as defined in claim 17, wherein the display comprises one of a cathode ray tube (CRT) display, a liquid crystal display (LCD), a light-emitting diode (LED) display, or a plasma display.

23. (Previously Presented) An apparatus as defined in claim 17, wherein the second communication link operates in accordance with one of an 802.11-based communication protocol, a Bluetooth-based communication protocol, or an infrared-based communication protocol.



24. (Previously Presented) A processor system to provide a handheld pointer-based user interface comprising:

a display having a screen configured to generate one of text or graphics;

a processor operatively coupled to the display to generate screen information on the screen of the display; and

a handheld pointer-based user interface device having a wireless pointer component configured to transmit via a first communication link one or more human-computer interaction (HCI) signals associated with an HCI operation, wherein a first one of the HCI signals associated with the HCI operation is encoded differently from a second one of the HCI signals associated with the HCI operation to indicate a difference in time between a first time corresponding to the first one of the HCI signals and a second time corresponding to the second one of the HCI signals, and a base component operatively coupled to the screen of the display to receive via the first communication link the HCI signals from the wireless pointer component and configured to generate position information associated with the wireless pointer component based on the HCI signals, and to transmit via a second communication link the position information from the one or more base components to the processor.

25. (Previously Presented) A processor system as defined in claim 24, wherein the HCI signals correspond to one of writing, drawing, selecting, or scrolling directly on the screen of the display with the wireless pointer component by a user.

26. (Previously Presented) A processor system as defined in claim 24, wherein the wireless pointer component comprises one of a stylus or an electronic pen.

27. (Previously Presented) A processor system as defined in claim 24, wherein the screen information comprises one or more coordinates calculated based on the position information.

28. (Previously Presented) A processor system as defined in claim 24, wherein the processor comprises one of a desktop computer, a laptop computer, or a handheld computer.

29. (Previously Presented) A processor system as defined in claim 24, wherein the display comprises one of a cathode ray tube (CRT) display, a liquid crystal display (LCD), a light-emitting diode (LED) display, or a plasma display.

30. (Previously Presented) A processor system as defined in claim 24, wherein the second communication link operates in accordance with one of an 802.11-based communication protocol, a Bluetooth-based communication protocol, or an infrared-based communication protocol.

***Allowable Subject Matter***

Claims 1-30 are allowed.

3. The following is an examiner's statement of reasons for allowance:

The current application is directed to a method, a machine readable medium, an apparatus and a processor system to provide a handheld pointer-based user interface comprising:

encoding, at a wireless pointer component, a first human-computer interaction (HCI) signal with a first code to correspond to a first time associated with a first HCI operation;

transmitting via a first communication link the first encoded HCI signal from the wireless [[point]]\_pointer component to a base component that is operatively coupled to a screen of a display;

encoding, at the wireless [[point]]\_pointer component, a second HCI signal with a second code to correspond to a second time associated with the first HCI operation;

transmitting via the first communication link the second encoded HCI signal from the wireless pointer component to the base component, wherein the first code and the second code differ to indicate a difference between the first time the second time;

generating position information associated with the wireless pointer component based on one of the first and second HCI signals; and

transmitting via a second communication link the position information from the base component to a processor configured to generate screen information on the screen of the display.

The art of record: **Moyne et al. (Moyne, US 7,109,979 B2)**. Moyne describes a method, a machine readable medium, an apparatus and a processor system to provide a handheld pointer-based user interface comprising: encoding, at a wireless pointer component, a first human-computer interaction (HCI) signal with a first code to correspond to a first time associated with a first HCI operation; transmitting via a first communication link the first encoded HCI signal from the wireless pointer component to a base component that is operatively coupled to a screen of a display; encoding, at the wireless pointer component, a second HCI signal with a second code to correspond to a second time associated with the first HCI operation; transmitting via the first communication link the second encoded HCI signal from the wireless pointer component to the base component; generating position information associated with the wireless pointer component based on one of the first and second HCI signals; and transmitting via a second communication link the position information from the base component to a processor configured to generate screen information on the screen of the display.

4. Moyne does not specifically disclose encoding, at a wireless pointer component different HCI signals at different times/positions as the wireless pointer component

moves to perform the same HCI operation, wherein the each of the codes differ to indicate a difference between different time and space of the wireless pointer component.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HAOSHIAN SHIH whose telephone number is (571)270-1257. The examiner can normally be reached on m-f 0730-1700.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kieu Vu can be reached on (571) 272-4057. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HSS

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